

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Initially, the Examiner objects to the specification stating that the material recited in the “Summary of the Invention” from page 3 to page 8 is repetitive of the claims. However, Applicant respectfully submits that the description provided in the “Summary of the Invention” recites an accurate summary of the invention as required by MPEP §608.01(d), which requires that any object recited in the summary should be that of the invention as claimed. Applicant respectfully submits that the summary of the invention is consistent with the subject matter of the claims, as required by MPEP §608.01(d). Accordingly, Applicant respectfully requests withdrawal of the objection to the specification.

The Examiner rejects claims 1-3 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Examiner states that it is unclear what is meant by “dependent on the combination of the transmission level of said input signal and the reception level received in said receiving means”, and that nowhere in the specification is it recited that the transmission level and reception level are “combined”.

In response, Applicant has amended the claim language to recite that the transmission level of the input signal is increased, decreased or maintained dependent on both the transmission level of the input signal and the reception level. Support for the amendment is found throughout the specification; specifically, in Fig. 4, and on page 12, line 27 – page 13, line 15. Accordingly, Applicant respectfully submits that no new matter has been added by way of the amendment to the claims. Applicant respectfully requests withdrawal of the 35 U.S.C. §112, first paragraph, rejection.

Further, the Examiner rejects claims 1, 13 and 14 under 35 U.S.C. §102(b) as being allegedly anticipated by Japanese Publication No. 08-163038 to Shinji et al. (hereinafter “Shinji”). Claims 2, 9 and 15 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Shinji. Claims 3 and 10 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Shinji in view of U.S. Patent No. 5,999,799 to Hu et al. (hereinafter “Hu”). Claims 4 and 11 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Shinji in view of Japanese Publication No. 63-189924 to Kenji (hereinafter “Kenji”). Claims 5 and 12 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Shinji in view of Hu in further view of Kenji. Claim 6 is rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Shinji in view of Japanese Publication No. 02-235499 to Yoshikazu (hereinafter “Yoshikazu”). Claim 7 is rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Shinji in view of Kenji and further in view of Yoshikazu. Claim 8 is rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Shinji in view of Hu in further view of Kenji in further view of Yoshikazu.

In the response to the previous Office Action, independent claims 1, 2, 3 and 13 were amended to recite that the predetermined transmission level is increased, decreased or maintained dependent on a combination of the transmission level and the reception level. In response, the Examiner provided a 112, first paragraph rejection, and states that the specification does not teach “combining” the transmission level and the reception level. However, the argument was not based on “combining” the transmission level and reception level, but instead, on the fact that the predetermined transmission level of the input signal is increased, decreased or maintained depending on both the level of the transmission of the input signal and the level of reception in the receiving means. This allows for less consumption of electricity, depending on

the level of transmission and reception, which is not taught or even suggested by the cited references.

The present invention teaches a wireless keyboard that solves the problem experienced by wireless keyboards that consume a high amount of electricity because they transmit the radio signal from the wireless keyboard at a fixed level (usually the maximum level) at all times. The present invention solves this problem by switching a predetermined transmission level of an input signal, depending on the transmission level of the input signal, and on the reception level in the receiving means, as recited in independent claims 1 and 13, thus resulting in less consumption of electricity.

Shinji teaches a current control means that sequentially changes a drive current fed to a light emitting element. However, merely changing the drive current is not equal to switching a transmission level of an input signal dependent on both the transmission level of the input signal and the reception level in the receiving means, as alleged by the Examiner. Shinji only teaches changing the amount of drive current when the wireless lightwave signal does not materialize; therefore, possibly increasing the transmission level when the signal is not received. However, Shinji never teaches increasing, decreasing, or maintaining the transmission level depending on the transmission level of the input signal and the reception level in the receiving means in order to save electricity, as recited in the claims.

The Examiner alleges that Shinji discloses increasing, decreasing or maintaining the predetermined transmission level of the input signal depending on the transmission level of the input signal and reception level in the receiving means. However, Shinji teaches a decode means 9 that controls the input signal in the reception means 6, controls the optical transmission means 7, and controls a main body 10 to attain 2-way communication. The present invention is not

directed to attaining 2-way communication, but to saving power while maintaining 2-way communication. The present invention accomplishes this by increasing, decreasing or maintaining the transmission level of the input signal depending on the transmission level of the input signal and the reception level in the receiving means.

As Shinji fails to teach the elements of independent claims 1, 13 and dependent claim 14, Applicant respectfully submits that the §102(b) rejection of claims 1, 13 and 14 is improper. Anticipation requires the presence in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim. Lindeman Maschinenfabrik GMBH v. American Hoist and Derrick Company, 730 F.2d 1452, 1458; 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). As Shinji fails to disclose the elements of the claims, Applicant respectfully requests withdrawal of the §102(b) rejection of claims 1, 13 and 14.

Regarding the §103(a) rejection of independent claim 2, the Examiner states that Shinji teaches the features of the claim except that Shinji fails to teach a first transmission level setting means for storing the transmission level of the input signal transmitted from the transmitting means, and setting a new transmission level with reference to a predetermined transmission level setting table in accordance with a combination of the transmission level and the reception level upon receiving the reception level from the receiving means. However, the Examiner states that Shinji discloses being able to control and change the amount of drive current to a variety of values, and as such, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such a feature.

All the arguments made above in regard to independent claims 1 and 13 are equally applicable here, and are hereby incorporated in regard to independent claim 2. Further,

Applicant respectfully submits that Shinji does not teach the elements of claim 2 as alleged by the Examiner, specifically with regard to the transmission level switching means.

Shinji discloses a current control means that controls a drive current fed to a light-emitting element. Therefore, when 2-way communication by the wireless optical signal is not established consecutively for a specific number of times, the drive current supplied to the light-emitting element is sequentially changed. This feature lets the user know if 2-way communication is established or not through the use of a light-emitting element, and controlling the drive current accordingly.

The present invention, as recited in claim 2, provides a transmitting means, receiving means, and a transmission level switching means for receiving a new transmission level and increasing, decreasing or maintaining the transmission level, according to both the transmission level of the input signal and the reception level received in the receiving means. Such a feature provides for less electricity being consumed by switching the transmission level of the input signal. Shinji merely activates a light-emitting element if 2-way communication is not established; Shinji does not teach increasing, decreasing or maintaining the transmission level of the input signal according to both the transmission level of the input signal and the reception level received in the receiving means.

It has been held by the Courts that to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). As Shinji fails to teach or even suggest the claim limitations of independent claim 2, and thus dependent claims 9 and 15, Applicant respectfully requests that the §103(a) rejection of claims 2, 9 and 15 be withdrawn.

Regarding the §103(a) rejection of independent claim 3, the Examiner states that Shinji teaches the features of the claim except that Shinji fails to teach the second transmission level setting means for storing the transmission level of the input signal and detecting a distance information between the wireless keyboard and the information processing device. However, the Examiner states that Hu discloses a wireless device that stores distance information and alerts a user that the user is currently out of range and cannot use the wireless device; therefore, it would have been obvious to incorporate this feature to one of ordinary skill in the art.

All the arguments made above in regard to independent claims 1, 2 and 13 are equally applicable here, and are hereby incorporated in regard to independent claim 3. Specifically, Shinji does not teach a transmission level switching means for receiving a new transmission level and increasing, decreasing or maintaining the transmission level, according to both the transmission level of the input signal and the reception level received in the receiving means, as alleged by the Examiner.


Further, Applicant respectfully submits that Hu does not supply the elements missing from Shinji with regard to claim 3. Hu discloses that the information processing device is inoperable after a certain distance is attained from the remote control device and the information processing device. The present invention, as recited in claim 3, provides for a second transmission level setting means that detects the distance between the wireless keyboard and the information processing device, and a transmission level switching means that increases, decreases, or maintains the transmission level according to both the transmission level and the reception level. As discussed above, Shinji does not teach such a feature. Further, Hu fails to teach this feature. Therefore, Shinji and Hu, individually or in combination, fail to teach the

elements of independent claim 3. Accordingly, Applicant respectfully requests that the §103(a) rejection of independent claim 3 and dependent claim 10 be withdrawn.

Turning to the §103(a) rejections of dependent claims 4-8 and 11-12, it must be noted that the Examiner relies on Shinji, in combination with Hu and/or other references, to support the asserted rejections. As set out above, Shinji and/or Hu do not disclose all the elements of the independent claims. Accordingly, since dependent claims 4-8 and 11-12 recite additional unique elements and/or limitations, claims 4-8 and 11-12 remain patentable over the asserted combination since the cited additional references do not supply the elements missing from Shinji and/or Hu with respect to the independent claims. Therefore, it is respectfully requested that the §103(a) rejections of claims 4-8 and 11-12 be withdrawn, and respectfully requested that claims 1-15 be allowed.

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorney would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,


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